

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : James Austin KENDRICK et al

Group Art Unit: 1764

Appl. No. : 09/992,590

Examiner: Marian C. KNODE

Filed : November 6, 2001

For : CONTINUOUS SLURRY POLYMERIZATION VOLATILE REMOVAL

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. 1.56, 37 C.F.R. 1.97, and 37 C.F.R. 1.98, Applicant hereby directs the Examiner's attention to the following information cited in an earlier filed IDS in the above-identified application:

United States Patents

- (1) 2,825,721, Hogan et al., issued March 4, 1958;
- (2) 2,915,513, Leatherman et al., issued December 1, 1959;
- (3) 3,152,872, Scoggin et al., issued October 13, 1964;
- (4) 3,172,737, Whittington, issued March 9, 1965;
- (5) 3,242,150, Scoggin, issued March 22, 1966;

- (6) 3,248,179, Norwood, issued April 26, 1966;
- (7) 3,257,363, Miller et al., issued June 21, 1966;
- (8) 3,262,922, Payne, issued July 26, 1966;
- (9) 3,293,000, Marwil, issued December 20, 1966;
- (10) 3,318,857, Dietz, issued May 9, 1967;
- (11) 3,324,093, Alleman, issued June 6, 1967;
- (12) 3,418,305, Payne et al., issued December 24, 1968;
- (13) 3,551,403, Delbouille et al., issued December 29, 1970;
- (14) 3,625,658, Closon, issued December 7, 1971;
- (15) 3,794,627, Giachetto, issued February 26, 1974;
- (16) 3,816,383, Stotko, issued June 11, 1974;
- (17) 3,858,943, Bose et al., issued January 7, 1975;
- (18) 3,956,061, Young et al., May 11, 1976;
- (19) 3,956,257, Hogan, issued May 11, 1976;
- (20) 4,007,321, Scholz et al., issued February 8, 1977;
- (21) 4,099,335, Jezl et al., issued July 11, 1978;
- (22) 4,121,029, Irvin et al., issued October 17, 1978;
- (23) 4,199,546, Kirch, issued April 22, 1980;
- (24) 4,372,758, Bobst et al., issued February 8, 1983;

- (25) 4,383,972, McCurdy et al., issued May 17, 1983;
- (26) 4,395,523, Kirch, issued July 26, 1983;
- (27) 4,424,341, Hanson et al., issued January 3, 1984;
- (28) 4,436,902, Wood et al., issued March 13, 1984;
- (29) 4,439,601, McCurdy et al., issued March 27, 1984;
- (30) 4,461,889, Hanson issued July 24, 1984;
- (31) 4,501,885, Sherk et al., issued February 26, 1985;
- (32) 4,589,957, Sherk et al., issued May 20, 1986;
- (33) 4,613,484, Ayres et al., issued September 23, 1986;
- (34) 4,632,976, Asanuma et al., issued December 30, 1986;
- (35) 4,690,804, Rohlfing, issued September 1, 1987;
- (36) 4,713,444, Matsuyama et al., issued December 15, 1987;
- (37) 4,737,280, Hanson, issued April 12, 1988;
- (38) 4,794,151, Mueller-Mall et al., issued December 27, 1988;
- (39) 4,832,915, Messura et al., issued May 23, 1989;
- (40) 5,183,866, Hottovy, issued February 2, 1993;
- (41) 5,207,929, Sung et al., issued May 4, 1993;
- (42) 5,276,115, Bohmer et al., issued January 4, 1994;
- (43) 5,292,863, Wang, issued March 8, 1994;

- (44) 5,314,579, Sung, issued May 24, 1994;
- (45) 5,326,835, Ahvenainen et al., issued July 5, 1994;
- (46) 5,387,659, Hottovy et al., issued February 7, 1995;
- (47) 5,391,656, Campbell et al., issued February 21, 1995;
- (48) 5,416,179, Welch et al., issued May 16, 1995;
- (49) 5,436,212, Geerts, issued July 25, 1995;
- (50) 5,455,314, Burns et al., issued October 3, 1995;
- (51) 5,473,020, Peifer et al., issued December 5, 1995;
- (52) 5,480,948, Geerts, issued January 2, 1996;
- (53) 5,492,985, Peifer et al., issued February 20, 1996;
- (54) 5,565,174, Bums et al., issued October 15, 1996;
- (55) 5,565,175, Hottovy et al., issued October 15, 1996;
- (56) 5,575,979, Hanson, issued November 19, 1996;
- (57) 5,597,892, Hanson, issued January 28, 1997;
- (58) 5,639,834, Debras et al., issued June 17, 1997;
- (59) 5,712,365, Arai et al., issued January 27, 1998;
- (60) 5,747,407, Martin, issued May 5, 1998;
- (61) 5,986,021, Hokkanen et al., issued November 16, 1999;
- (62) 6,042,790, Hottovy et al., issued March 28, 2000;

- (63) 6,045,661, Kreischer et al., issued April 4, 2000;
- (64) 6,239,235, Hottovy et al., issued May 29, 2001;

Canadian Patent Application

- (65) CA 857386, published December 1, 1970;

European Patent Applications:

- (66) EP 415427, published March 6, 1991;
- (67) EP 416379, published March 13, 1991;
- (68) EP 432555, published June 19, 1991;
- (69) EP 648697, published April 19, 1995;
- (70) EP 891990, published January 20, 1999;

Japanese Patent Applications

- (71) JP 72013367, (with English-language translation of abstract only),
published 1972;
- (72) JP 62-13408, published August 14, 1989;
- (73) JP 07-286004, published October 31, 1995;

UK Patent Applications

- (74) GB 841263, published July 13, 1960;
- (75) GB 1 435 965, published May 19, 1976;

PCT Applications

- (76) WO 01/05842 A1, published January 25, 2001;

Other Documents

- (77) Michael Arne, SRI International, HIGH DENSITY POLYETHYLENE, Supplement D, A private report by the PROCESS ECONOMICS PROGRAM, May 1989;
- (78) K.B. Bryan et al., "Polypropylene: Supplement A." SRI International Report, Process Economics Program, Report No. 128A, August (1993);
- (79) J.P. Hogan et al., "Phillips Petroleum Company Loop Reactor Polyethylene Technology," Journal of Applied Polymer Science: Applied Polymer Symposium, 36, pp. 49-60 (1981);
- (80) R.H. Perry & C.H. Chilton (Eds.), Chemical Engineers' Handbook (5th ed.), McGraw-Hill, Inc., New York, New York, pp. 5-46 - 5-47 (1973);
- (81) "Total Quality Report," Baton Rouge, Louisiana, Vol. 13, No. 1, Jan/Feb.

p.4 (1998).

Additionally, the following documents, also cited in the earlier filed IDS in the above-identified application, are brought to the Examiner's attention:

- (82) U. S. patent no. 1,693,786, Isaachsen, issued December 4, 1928;
- (83) U. S. patent no. 2,988,527, Tegge, issued June 13, 1961;
- (84) U.S. patent no. 3,203,766, Mudd et al., issued August 31, 1965;
- (85) U. S. patent no. 3,640,980, Baba, issued February 8, 1972;
- (86) WO 99 47251, published September 23, 1999;
- (87) WO 99 60028, published November 25, 1999;
- (88) DE 1800935 (Abstract), published May 1969;
- (89) WO 97 36942, published October 9, 1997;
- (90) WO 00 02929, published January 20, 2000;
- (91) EP 0519266, published December 23, 1992.

Furthermore, the following documents are brought to the Examiner's attention:

- (92) EP 0479186, published April 8, 1992;
- (93) US published application 2001/0012497, published August 9, 2001;
- (94) U.S. patent no. 4,596,862, McDaniel et al., issued June 24, 1986;

- (95) FI 96216, published February 15, 1996; and
- (96) WO 96/18662, published June 20, 1996.

Lastly, the Examiner is invited to review the following related patented files and patent application files for documents cited therein as well as positions taken by the Examiner during the examination process:

- (97) U.S. patent no. 6,204,344, Kendrick et al, issued March 20, 2001;
- (98) U.S. patent no. 6,281,300, Kendrick, issued August 28, 2001;
- (99) U.S. patent no. 6,319,997, Kendrick, issued November 20, 2001;
- (100) U.S. patent no. 6,380,325, Kendrick, issued April 30, 2002;
- (101) U.S. application no. 09/080,412, filed May 18, 1998;
- (102) U.S. application no. 10/023,677, filed February 14, 2002;
- (103) U.S. application no. 10/147,219, filed May 14, 2002;
- (104) U.S. application no. 09/992,770, filed November 6, 2001, now abandoned;
- (105) U.S. application no. 10/375,660, filed February 27, 2003;
- (106) U.S. application no. 10/079,226, filed February 19, 2002;
- (107) U.S. application no. 10/085,809, filed February 28, 2002;
- (108) U.S. application no. 10/260,010, filed March 11, 2003;
- (109) U.S. application no. 09/955,729, filed September 19, 2001, now abandoned;

and

(110) U.S. application no. 10/260,011, filed March 11, 2003.

Copies of documents (1)-(91) are not enclosed, as they were previously made of record in the instant application. Copies of the above-noted documents (92)-(96) are enclosed. Copies of related patented files and related patent application files (97)-(110) are not enclosed as they are readily available to the Examiner and would unnecessarily clutter the instant application file. However, should any of the documents which are not being enclosed herewith not be available to the Examiner, Applicant will promptly submit a copy upon notification by the Examiner. The Examiner is accordingly requested to consider each of these documents, and to make them of record in this application by initialing in the appropriate spaces on the duly completed Form PTO-1449. Applicant respectfully requests that the Examiner include a copy of the initialed Form PTO-1449 with the next communication from the U.S. Patent and Trademark Office.

Please charge any fees under 37 CFR 1.97(c) necessary for consideration of the papers filed herein and refund excess payments to Deposit Account No. 19-0089.

Should the Examiner have any questions or comments regarding this matter, the undersigned may be contacted at the below-listed telephone number.

Respectfully submitted,
James Austin KENDRICK et al



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July 15, 2003
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#16 Attach.

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. P23711	APPLICATION NO. 09/992,590
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT James Austin Kendrick et al.	
		FILING DATE November 6, 2001	GROUP 1764

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2,825,721	3/4/58	Hogan et al.	260	88.1	3/26/56
	2,915,513	12/1/59	Leatherman et al.	260	94.9	5/21/54
	3,152,872	10/13/64	Scoggin et al.	34	15	3/6/61
	3,172,737	3/9/65	Whittington	23	285	7/6/61
	3,242,150	3/22/66	Scoggin	260	88.2	3/31/60
	3,248,179	4/26/66	Norwood	23	285	2/26/62
	3,257,363	6/21/66	Miller et al.	260	88.2	5/22/61
	3,262,922	7/26/66	Payne	260	93.7	2/8/63
	3,293,000	12/20/66	Marwil	23	285	10/5/62
	3,318,857	5/9/67	Dietz	260	93.7	5/24/63
	3,324,093	6/6/67	Alleman	260	88.2	10/21/63
	3,418,305	12/24/68	Payne et al.	260	94.9	11/25/64
	3,551,403	12/29/70	Delbouille et al.	260	94.9	8/1/68
	3,625,658	12/7/71	Closon	23	285	5/12/69
	3,794,627	2/26/74	Giachetto	260	88.2	7/27/71
	3,816,383	6/11/74	Stotko	260	94.9	5/1/72
	3,858,943	1/7/75	Bose et al.	302	26	3/13/73
	3,956,061	5/11/76	Young et al.	159	48 L	2/19/74
	3,956,257	5/11/76	Hogan	526	64	8/14/75

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

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	4,007,321	2/8/77	Scholz et al.	526	64	2/20/75
	4,099,335	7/11/78	Jezl et al.	34	9	11/19/76
	4,121,029	10/17/78	Irvin et al.	526	64	12/6/76
	4,199,546	4/22/80	Kirch	422	132	3/16/78
	4,372,758	2/8/83	Bobst et al.	55	48	9/2/80
	4,383,972	5/17/83	McCurdy et al.	422	131	7/15/81
	4,395,523	7/26/83	Kirch	526	64	5/27/82
	4,424,341	1/3/84	Hanson et al.	528	501	9/21/81
	4,436,902	3/13/84	Wood et al.	528	501	2/12/82
	4,439,601	3/27/84	McCurdy et al.	528	481	7/15/81
	4,461,889	7/24/84	Hanson	528	498	9/17/80
	4,501,885	2/26/85	Sherk et al.	528	501	10/14/81
	4,589,957	5/20/86	Sherk et al.	203	75	8/25/83
	4,613,484	9/23/86	Ayres et al.	422	132	11/30/84
	4,632,976	12/30/86	Asanuma et al.	528	497	4/16/85
	4,690,804	9/1/87	Rohlfing	422	219	9/18/85
	4,713,444	12/15/87	Matsuyama et al.	528	502	5/30/86
	4,737,280	4/12/88	Hanson	210	181	5/7/84
	4,794,151	12/27/88	Mueller-Mall et al.	526	64	4/8/87
	4,832,915	5/23/89	Messura et al.	422	62	12/17/84
	5,183,866	2/2/93	Hottovy	526	88	12/30/89
	5,207,929	5/4/93	Sung et al.	210	774	8/2/91

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	5,276,115	1/4/94	Bohmer et al.	526	126	12/14/92
	5,292,863	3/8/94	Wang	528	483	11/2/92
	5,314,579	5/24/94	Sung	159	47.1	12/22/92
	5,326,835	7/5/94	Ahvenainen et al.	526	64	8/20/92
	5,387,659	2/7/95	Hottovy et al.	526	59	2/8/93
	5,391,656	2/21/95/	Campbell et al.	526	68	9/24/93
	5,416,179	5/16/95	Welch et al.	526	160	3/16/94
	5,436,212	7/25/95	Geerts	502	113	4/15/94
	5,455,314	10/3/95	Burns et al.	526	61	7/27/94
	5,473,020	12/5/95	Peifer et al.	525	243	6/30/94
	5,480,948	1/2/96	Geerts	526	142	3/28/95
	5,492,985	2/20/96	Peifer et al.	526	127	5/31/95
	5,565,174	10/15/96	Burns et al.	422	131	6/6/95
	5,565,175	10/15/96	Hottovy et al.	422	132	10/1/90
	5,575,979	11/19/96	Hanson	422	132	3/4/91
	5,597,892	1/28/97	Hanson	528	501	6/6/95
	5,639,834	6/17/97	Debras et al.	526	64	10/26/94
	5,712,365	1/27/98	Arai et al.	528	498	3/20/96
	5,747,407	5/5/98	Martin	502	26	8/29/96
	5,986,021	11/16/99	Hokkanen et al.	526	64	2/10/98
	6,042,790	3/28/00	Hottovy et al.	422	131	10/24/94
	6,045,661	4/4/00	Kreischer et al.	203	73	5/20/98

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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	CA 857386	12/1/70	Canada				
	EP 415427	3/6/91	EPO				
	EP 416379	3/13/91	EPO				
	EP 432555	6/19/91	EPO				
	EP 648697	4/19/95	EPO				
	EP 891990	1/20/99	EPO				
	JP 72013367	1972	Japan			X (English-language translation of abstract)	
	JP 62-13408	8/14/89	Japan			X	
	JP 07-286004	10/31/95	Japan			X	
	GB 841263	7/13/60	United Kingdom				
	GB 1 435 965	5/19/76	United Kingdom				
	WO 01/05842 A1	1/25/01	PCT				
	WO 99/47251	09/23/99	PCT				
	WO 99/60028	11/25/99	PCT				
	DE 1800935	05/69	Germany				
	WO 97/36942	10/09/97	PCT				
	WO 00/02929	01/20/00	PCT				

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	EP 0 519 266	12/23/92	Europe				
	EP 0 479 186	04/08/92	Europe				
	FI 96216	2/15/96	Finland				
	WO96/18662	6/20/96	PCT				

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
	Michael Arne, SRI International, HIGH DENSITY POLYETHYLENE, Supplement D, A private report by the PROCESS ECONOMICS PROGRAM, May 1989.
	K.B. Bryan et al., "Polypropylene: Supplement A." <u>SRI International Report</u> , Process Economics Program, Report No. 128A, August (1993).
	J.P. Hogan et al., "Phillips Petroleum Company Loop Reactor Polyethylene Technology," <u>Journal of Applied Polymer Science: Applied Polymer Symposium</u> , 36, 49-60 (1981).
	R.H. Perry & C.H. Chilton (Eds.), <u>Chemical Engineers' Handbook</u> (5th ed.), McGraw-Hill, Inc., New York, New York, pp. 5-46 – 5-47 (1973).
	"Total Quality Report", Baton Rouge, Louisiana, Vol. 13, No. 1, Jan/Feb. p. 4 (1998).
	USSN: 09/080,412 entitled "Continuous Slurry Polymerization Volatile Removal", filed May 18, 1998, Inventor: James Austin Kendrick (98B014/2)
	USSN: 09/955,729 entitled "Continuous Slurry Polymerization Volatile Removal", filed September 19, 2001, Inventors: James Austin Kendrick et al. (98B014A/3)
	USSN: 10/023,677 entitled "Continuous Slurry Polymerization Volatile Removal", filed February 14, 2002, Inventor: James Austin Kendrick (98B014/5)
	USSN: 10/147,219 entitled "Continuous Slurry Polymerization Volatile Removal", filed May 14, 2002, Inventor: James Austin Kendrick (98B014/6)
	USSN: 09/992,770 entitled "Continuous Slurry Polymerization Volatile Removal", filed November 6, 2001, Inventors: James Austin Kendrick et al. (98B014B)
	USSN: 10/085,809 entitled "Continuous Slurry Polymerization Process and Apparatus", filed February 28, 2002, Inventors: James Austin Kendrick et al. (98B014E)
	USSN: 10/375,660 entitled "Continuous Slurry Polymerization Process and Apparatus", filed February 27, 2003, Inventors: James Austin Kendrick et al. (98B014A/4)
	USSN: 10/079,226 entitled "Continuous Slurry Polymerization Process and Apparatus", filed February 19, 2002, Inventors: James Austin Kendrick et al. (98B014D)
	USSN: 10/260,010 entitled "Continuous Slurry Polymerization Process and Apparatus", filed March 11, 2003, Inventors: James Austin Kendrick et al. (98B014A/5)
	USSN: 10/260,011 entitled "Continuous Slurry Polymerization Process and Apparatus", filed March 11, 2003, Inventors: James Austin Kendrick et al. (98B014B/2)

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